AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1.-8. (cancelled)

9. (previously presented) A method of fabricating an optical integrated circuit, comprising:

providing a base;

forming at least one waveguide extending axially through at least a portion of the base along an optical path; and

forming a polarization swapping portion in a portion of the at least one waveguide using polarized light, wherein the polarized light comprises at least one of femto-second pulsed visible light and UV light.

10. (original) The method of claim 9, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide at an angle of about 45 degrees with respect to axes perpendicular to the axis of the optical path.

11. (previously presented) The method of claim 9, wherein the polarized light comprises femto-second pulsed UV light.

12. (original) The method of claim 9, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide from a laser.

13. (original) The method of claim 12, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide at an angle of about 45 degrees with respect to axes perpendicular to the axis of the optical path.

14. (previously presented) The method of claim 13, wherein the polarized light comprises femto-second pulsed UV light.

15. (previously presented) The method of claim 12, wherein the polarized light comprises femto-second pulsed visible light.

16. (original) The method of claim 9, wherein forming the polarization portion comprises providing the polarized light from a laser to the at least one waveguide using a prism.

17. (previously presented) A method of mitigating polarization dependence in an optical integrated circuit, comprising:

providing an optical integrated circuit having at least one waveguide extending axially through at least a portion of a base along an optical path; and

forming a polarization swapping portion in a portion of the at least one waveguide using polarized light, wherein the polarized light comprises at least one of femto-second pulsed visible light and UV light.

18. (original) The method of claim 17, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide at an angle of about 45 degrees with respect to axes perpendicular to the axis of the optical path.

19. (previously presented) The method of claim 17, wherein the polarized light comprises femto-second pulsed UV light.

20. (original) The method of claim 17, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide from a laser.

21. (original) The method of claim 20, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide at an angle of about 45 degrees with respect to axes perpendicular to the axis of the optical path.

22. (previously presented) The method of claim 21, wherein the polarized light comprises femto-second pulsed visible light.

23. (original) The method of claim 20, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide at an angle of about 42 degrees or more and about 48 degrees or less with respect to axes perpendicular to the axis of the optical path.

24. (previously presented) The method of claim 9, wherein the polarization swapping portion acts as one of a half-waveplate, a quarter-waveplate, and an eighth-waveplate.

25. (previously presented) The method of claim 17, wherein the polarization swapping portion acts as one of a half-waveplate, a quarter-waveplate, and an eighth-waveplate.

26. (currently amended) A method of fabricating an optical integrated circuit, comprising:

providing a base;

forming at least one waveguide extending axially through at least a portion of the base along an optical path; and

forming a polarization swapping portion in a portion of the at least one waveguide using polarized light by providing the polarized light from a laser to the at least one waveguide using a prism, wherein the polarized light comprises at least one of femto-second pulsed visible light and UV light.

27. (previously presented) The method of claim 26, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide at an angle of about 42 degrees or more and about 48 degrees or less with respect to axes perpendicular to the axis of the optical path.

28. (previously presented) The method of claim 26, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide at an angle of about 45 degrees with respect to axes perpendicular to the axis of the optical path.

29. (cancelled)

30. (previously presented) The method of claim 26, wherein forming the polarization swapping portion comprises providing polarized light to the at least one waveguide from a laser.

31. (previously presented) The method of claim 26, wherein the polarization swapping portion acts as one of a half-waveplate, a quarter-waveplate, and an eighth-waveplate.

32. (new) The method of claim 26, wherein the polarized light comprises femto-second pulsed visible light.